**Amendments to the Specification:**

Please replace the paragraph at page 2, lines 3-10, with the following:

A high rate flow is more likely to have a datapacket in the high occupancy buffer than a lower rate flow, because datapackets of the higher rate flow use the buffer more frequently than those of a lower rate flow. Therefore, when a switch buffer fills, among all the flows sharing the corresponding link, higher rates [[flow]] flows are more likely to receive a congestion flag than lower rate flows. Such bias in congestion signaling is strongest in network with small buffers that can store only a few datapackets, because then, when a buffer becomes highly occupied, the subset of flows represented in the buffer is likely only a small fraction of all the flows that share the corresponding network communication link.

Please replace the paragraph at page 5, lines 9-12, with the following:

Method embodiments of the present invention provide network source node responses which converge to fair and efficient ~~networks~~ network operating points. Source responses include fast increase multiplicative decrease (FIMD), and linear inter-datapacket delay (LIPD).

Please replace the paragraph at page 5, lines 29-34, with the following:

The source response mechanism controls the injection of datapackets into the network based on the information provided by the congestion feedback mechanism. On receipt of a congestion feedback signal indicating no congestion, the source increases the flow's rate limit based on an increase function, $r_{new}=f_{inc}(r)$, where "r" is the current rate limit, and $r_{new}$ is the next rate limit setting for the flow. The source reduces the rate limit based on a decrease function, $r_{new}=r_{dec}(r)$ on receipt of a feedback congestion [[flag,.]] flag.

Please replace the paragraph at page 9, lines 3-5, with the following:

The fast increase multiplicative decrease (FIMD) source response function uses a multiplicative rate decrease function is adopted. Such is the same decrease function used by the traditional additive increase multiplicative decrease (AIMD) function, $f_{dec}(r)=Max\ (r/m, R_{min})$, where m>1 is constant

Please replace the paragraph at page 9, lines 15-23, with the following:

FIG. 3 represents a procedure 300 used by an FIMD source response mechanism. A flow source end-device or node increases and decreases a flow's rate limit in response to congestion feedback. Procedure 300 reads and writes the value of a state variable "crt". Such records the current rate limit setting for a flow. In a hardware implementation of the source response mechanism, the "crt" variable may be implemented as a hardware register. Another procedure at the source end-device reads the value of "crt" and prevents datapackets for the flow from being injected into the network at a higher rate than the value of crt specifies. In a step 304, an ACK datapacket just received is checked to see if it is marked.

Please replace the paragraph at page 9, lines 24-28, with the following:

A marked ACK datapacket indicates congestion, so the source reduces the rate limit "crt" by a multiplicative constant, m>1 at step 306. In a step 308, an updated rate "r" is then checked against the minimum injection rate $R_{min}$. If the new rate is less than $R_{min}$, "crt" is assigned the value of $R_{min}$ at step 310. If the new rate is not less than $R_{min}$, "crt" is assigned the value of the new rate at step 312.

Please replace the paragraph at page 9, lines 29-33, with the following:

If an unmarked ACK is received, the source increases the rate limit "crt" by a multiplicative constant, $m^{R_{min}/crt}$, at step 314. The increased rate is then compared against the maximum injection rate, $R_{max}$, at step 316. If the new rate is greater than $R_{max}$, "crt" is assigned the value of $R_{max}$ at step 318. If the new rate is not greater than $R_{max}$, "crt" is assigned the value of the new rate at step 320.

Please replace the paragraph at page 10, lines 28-30 with the following:

From Equation [[[2]]] $\underline{3}$, $F_{inc}(t)$ must satisfy,

$$F_{inc}(t + T_{rec}) = R_{max}/(R_{max}/F_{inc}(t) - 1).$$

Please replace the paragraph at page 11, lines 1-9, with the following:

For any rate [["r"]] $\underline{r}$, $R_{min} \leq r \geq R_{max}$, there exists a t' for which $r=F_{inc}(t')=R_{max}/(R_{max}/R_{min}-t'/T_{rec})$. Therefore,

$$F^{r}_{inc}(t) = F_{inc}(t+t') = R_{max} / ( R_{max}/R_{min} - t'/ T_{rec} - t/ T_{rec})$$

$$= R_{max} / ( R_{max} / F_{inc}(t') - t / T_{rec}) = R_{max} / ( R_{max} /[["r"]]\ \underline{r} - t/ T_{rec})$$

and,

$$f_{inc}(r) = Min(F^{r}_{inc}(1/r ), R_{max})$$

$$= Min( R_{max} / ( R_{max} / [["r"]]\ \underline{r} - 1 / ( r*T_{rec})), R_{max} )$$

$$= Min( R_{max} / ( R_{max}/[["r"]]\ \underline{r} - R_{mi} /r ), R_{max})$$

$$= Min ([["r"]]\ \underline{r} / ( 1 - R_{min}/R_{max} ), R_{max} ).$$

Please replace the paragraph at page 11, lines 25-30, with the following:

If it is an unmarked ACK datapacket, the source increases the rate limit "crt" at step 414. The new value decreases [[of]] inter-datapacket delay by a fraction $R_{min}$/[["r"]] r of one datapacket transmission time 1/$R_{max}$. The increased rate is then compared against the maximum injection rate, $R_{max}$, at step 416. If the new rate is greater than $R_{max}$, [["crt"]] crt is assigned the value of $R_{max}$ at step 418. In a step 420, if the new rate is not greater than $R_{max}$, [["crt"]] crt is assigned the value of the new rate.

Please replace the paragraph at pages 12, lines 12-19, with the following:

The rate of a flow can be mathematically represented as $R_{max}$/([["ipd"]] ipd +1). In a step 524, the error in the flow rate due to the rounding down of "ipd" is calculated, given by ($R_{max}$/([["ipd"]] ipd +1)- [["crt"]] crt). Such error value from the rounding down of "ipd" is compared with the error in the rate which would occur if the "ipd" were rounded up (given by [["crt"]] crt - $R_{max}$/([["ipd"]] ipd +2)). Thus if the error from rounding down the [["ipd"]] ipd is greater than that from rounding it up, the [["ipd"]] ipd is incremented by one at step 526. Otherwise, the rounded down [["ipd"]] ipd is considered to be correct, and the update procedure 500 finishes at step 528. Steps 522-528 ensure the inter-datapacket delay is an integer value